

WHAT IS CLAIMED IS:

1. A bidirectional promoter complex comprising:
a modified enhancer region that includes at
least two enhancer sequences; and
5 at least two core promoters,
the core promoters being on either side of the
modified enhancer region in a divergent orientation.
2. The bidirectional promoter complex of claim 1
wherein the modified enhancer region includes at least
10 two tandem oriented enhancer sequences having substantial
sequence identity.
3. The bidirectional promoter complex of claim 1
wherein the modified enhancer region is constructed such
that a 3' end of a first enhancer sequence is linked to a
15 5' end of a second enhancer sequence.
4. The bidirectional promoter complex of claim 1
wherein the modified enhancer region includes a number of
enhancer sequences which is a multiple of two.
5. The bidirectional promoter complex of claim 1
20 wherein the core promoters have a sequence homology of
about 30% and include at least about 5 base pairs of
identical contiguous nucleotides.
6. The bidirectional promoter complex of claim 1
wherein the core promoters are fused to either end of the
25 modified enhancer region in a divergent orientation.
7. The bidirectional promoter complex of claim 1
wherein each core promoter includes a TATA-box consensus
element and an Initiator.

8. The bidirectional promoter complex of claim 7 wherein each core promoter further includes at least one cis-acting element.

9. The bidirectional promoter complex of claim 1
5 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 1 and 2.

10. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 3 and 4.

10 11. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 5 and 6.

12. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ.
15 ID. Nos. 7 and 8.

13. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 9 and 10.

14. The bidirectional promoter complex of claim 1
20 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 11 and 12.

15. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 13 and 14.

25 16. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 15 and 16.

17. The bidirectional promoter complex of claim 1 wherein the bidirectional promoter complex includes SEQ. ID. Nos. 17 and 18.

18. A vector comprising a bidirectional promoter
5 complex, the bidirectional promoter complex including a modified enhancer region and at least two core promoters, the core promoters being on either side of the modified enhancer complex in a divergent orientation.

19. A eukaryotic cell transfected with a vector,
10 the vector comprising a bidirectional promoter complex, the bidirectional promoter complex including a modified enhancer region and at least two core promoters, the core promoters being on either side of the modified enhancer region in a divergent orientation.

20. A transgenic plant comprising plant cells that
15 have been transformed with a vector that includes a bidirectional promoter complex, the bidirectional promoter complex including a modified enhancer region and at least two core promoters, the core promoters being on
20 either side of the modified enhancer region in a divergent orientation.

21. A plant seed having in its genome an inheritable genetic complex, the inheritable genetic complex comprising a bidirectional promoter complex, the
25 bidirectional promoter complex including a modified enhancer enhancer regions and at least two core promoters, the core promoters being on either side of the modified enhancer region in a divergent orientation.

22. A method for improving transcription efficiency
30 of transgenes, the method comprising inserting the transgene into a vector, the vector comprising a

bidirectional promoter complex, the bidirectional promoter complex including a modified enhancer region and at least two core promoters, the core promoters being on either side of the modified enhancer region in a
5 divergent orientation, the bidirectional promoter complex being effective for improving transcriptional efficiency of the transgene.

23. A method for producing one or more polypeptides, the method comprising inserting a transgene
10 into a vector, the vector comprising a bidirectional promoter complex, the bidirectional promoter complex including a modified enhancer region and at least two core promoters, the core promoters being on either side of the modified enhancer complex in a divergent
15 orientation, the bidirectional promoter complex being effective for improving transcriptional efficiency of the transgene.